DOCUMENT RESUME

ED 162 558 HE 010 576

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TITLE Systematic Evaluation of Instruction.
PUB DATE Apr 78
NOTE 35p.; Paper presented at the annual meeting of the Ohio Academy of Science (67th, Wright State University, April 1978)

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS *Course Content; *Course Evaluation; *Course Organization; Curriculum Development; Educational Psychology; Effective Teaching; Higher Education; *Individualized Instruction; *Instructional Improvement; Learning Modules; Predictor Variables; Questionnaires; State Universities; Statistical Analysis; *Student Evaluation of Teacher Performance
IDENTIFIERS *University of Akron CB

ABSTRACT

Two sections of an introductory educational psychology course given at the University of Akron were restructured using some nontraditional elements. Student evaluations of the course's content and structure and student achievement measures were used to analyze the effectiveness of the changes. The statistical analyses are detailed. The results are used to design clusters of elements to be used as predictors of academic success, which can in turn be used to personalize instruction in the course. Appended to the description of the study are some of the statistical results and the questionnaire given to the students. (MSE)

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ED162558

SYSTEMATIC EVALUATION OF INSTRUCTION

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Paper presented at the 87th Annual Meeting of the Ohio Academy of Science - Division M Psychology, Wright State University, Dayton, Ohio. Saturday, April 22, 1978.

HE 010 576

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

In the winter quarter of 1971, the senior author restructured two sections of the freshman introductory educational psychology course at The University of Akron. A non-traditional ten unit modular approach was employed (Carrier, 1956; Gibb & Gibb, 1952; Mawhinney et al 1968, and McKeachie, 1958). Each module was composed of four components: (1) a film-critique session, (2) a small group activity period in which students were to deal with various aspects of the film, (3) an hour integration lecture and open question session, and (4) a weekly 24 item multiple-choice quiz. In the ensuing years, certain refinements have been added but the basic model has remained.

From the earliest planning, evaluation has been an inherent part of this modular program. The initial funding of the undergraduate small group facilitators and the graduate teaching assistants who trained and supervised the undergraduate group facilitators was for only one year. Continued funding required the coordinator to demonstrate that (1) students were learning as much or more under the modular system as under the more traditional lecture system previously employed, (2) students evaluated the course and the instructors as high or higher than under the previous model, and (3) instruction was costing less per student credit hour.

At the end of the first full year of operation, 1971-72, evidence provided by test scores and grade distributions indicated that students were mastering a larger percentage of the material but the breadth of material was more limited,

primarily because the instructor had intentionally limited the range of material covered in order to increase mastery of the basic concepts and principles presented.

Student evaluations of the restructured course organization and content were somewhat higher than evaluations of course and content when the instructor had employed more traditional methods. Evaluation of the instructor dropped slightly, partly as a function of the instructor's being less visible.

While there was some concern about the validity of results from items one and two, there was little doubt that the instructional team of undergraduate and graduate teaching assistants working under the direction of a full-time faculty member could handle large numbers of students more efficiently at less cost per FTE than could be handled under the more traditional techniques of one lecturer per 75 students. Data from student evaluations indicated that students did not resent the large lecture technique nearly as much as when they had the opportunity to meet in small groups once per week.

Once initial summative evaluation was able to justify continuance of the program, plans for formative evaluation aimed at providing individualized instruction were formulated. The initial summative research had suggested three areas that required further development: (1) The weekly quizzes required futher analyses and poor items improved or eliminated. The interrelationship of weekly quizzes needed to be assessed and desparagees rectified.

(2) In order to gear the program to the various needs of the diverse students in the group, some type of diagnostic instrument would have to be developed. (3) In order to assess students' attitudes toward specific aspects of the course, such as the films, lectures, text, etc., a course-specific student evaluation instrument would have to be developed.

The University of Akron's computer test scoring program provided an item analysis of each quiz. Items with low internal consistency were either replaced or rewritten and resubmitted to students. Key concepts with which students seemed to have difficulty were retaught and retested in subsequent modules. While the test scoring programs more or less automatically took care of internal consistency within test, the interrelatedness of the weekly quizzes was simply assumed to be acceptable.

After several attempts to use various commercial instruments as diagnostic pretests proved fruitless, a 75 item multiple choice instrument was developed and tested over several quarters. Items were based on vocabulary words taken from the glossary of the general psychology text then in use at The University of Akron.

After several quarters, a ten item demographic survey was attached to the front of the questionnaire. Both could be computer scored--the former as a survey and the latter as a regular quiz with item analysis and other appropriate statistical output.

After some considerable experimentation and adaptation, a 34 item student end-of-course questionnaire was developed.

The first thirty items deal with formative questions, while the last four questions provide summative data. The thirty formative items are divided into three clusters: Cluster I: Objectives (four items), Cluster II: Instructional Procedures (19 items), Cluster III: Testing and Evaluation (seven items), and Cluster IV: Overall Evaluation, contains four summative items. (Appendix B)

Once a reliable pretest and demographic survey was developed, weekly quizzes analyzed and refined, and a reliable evaluation questionnaire constructed and output analyzed, the components of a course evaluation system were available. Performance on the weekly quizzes was selected as the criterion variable. Demographic data, pretest performance, and students evaluations were selected to be predictor variables. Data from the systematic evaluation would enable the instructional team to improve instructional procedures, individualize instruction, and determine overall instructional effectiveness. However, before data from the predictor and criterion variables could be applied in a predictor model internal reliability of the criterion variable, test performance had to be assessed: "Are the weekly quizzes significantly interrelated?" Having ascertained the interrelatedness of the weekly quizzes, the relationship between the three sets of predictors--demographic data, pretest performance, and post-course evaluation - and the criteria - test scores for each week-could be assessed. Since our concern was with student performance over time, we chose to treat each weekly quiz as a separate criterion variable rather than totalling the ten quizzes.

Four specific questions were formulated and tested:

1) Are students' responses to the ten demographic items related to their performances on each of the weekly quizzes?

2) Are students' scores on the pretest related to their performances on each of the weekly quizzes?

3) Are students' responses on the formative items of the course evaluation items related to their performance on each of the weekly quizzes?

4) Are students' responses on the summative items of the course evaluation related to their performance on each of the weekly quizzes?

METHOD

In order to answer the above questions, one section of the introductory educational psychology course, Human Development & Learning, was studied in depth. The relationships between students' demographic data, pretest scores, end-of-course evaluation, and weekly quiz scores were investigated.

Subjects: This sample was composed of 64 students. Forty-seven (73.4%) were female, 17 (26.6%) males. Forty (62.6%) were 19 or younger, 17 (26.6%) were 20 to 25 years, and seven (10.9%) 25 to 30 years old. Thirty-eight (59.4%) were freshmen, 14 (21.9%) sophomores, seven (10.9%) juniors, one (1.6%) a senior, and four (6.3%) post-baccalaureate students.

For 14 students (21.9%), this was their first education course, 41 (64.1%) their second, five (7.8%) their fifth Forty-nine (76.6%) were education majors, six (9.4%) were majors in arts and sciences, three (4.7%) business majors, and six (9.4%) in other areas.

Nineteen (29.7%) were preparing for preschool or elementary school teaching, four (6.3%) for middle-school work, eleven (17.2%) for secondary teaching and three (4.7%) for collegiate level teaching, and 14 (21.9%) for other areas of teaching. Thirteen (20.3%) were preparing for careers other than education.

Ten (15.6%) had had no experience working with children. Five (7.8%) had worked as substitute teachers, eleven (17.2%) as church school teachers, seven (10.9%) as camp counselors, one (1.6%) as an instructor in the armed forces, and thirty (46.9%) have some other experience related to teaching.

All had previously taken general psychology. Nine (14.8%) had received an "A", 18 (28.1%) a "B", 25 (39.1%) a "C", ten (15.6%) a "D", and two (3.1%) had failed the course.

Forty-six (71.9%) of the sample indicated that they expected to recieve an "A" or "B" in the introductory educational psychology course, 16 (25.0%) a "B" or "C", one (1.6%) a "C" or "D", and one (1.6%) did not respond.

Instrumentation:

Through the years, the senior author has developed the instruments employed in this study, starting with the pretest which has been used on other courses as well. Later the demographic survey was developed and added to the pretest. The student course evaluation emerged out of his other work. The weekly quizzes employed in this study are the product of at least three revisions.

Demographic Survey. The demographic instrument was initially designed to provide a profile of the students who take Human Development & Learning.

Students are asked to indicate: (1) Age, (2) Sex, (3) Grade received in general psychology, (4) Where they took general psychology, (5) Number of education courses previously taken, (6) Current academic rank - e.g. freshman, etc., (7) College major, (8) Teaching level for which certification in being sought, (9) Teaching experience, and (10) Grade expected in this course (Appendix A)

Pretest. Items for the pretest were selected from the Glossary of a general psychology reader. Selection was on the basis of the appropriateness of the item for students in introductory educational psychology. The 75 items had been analyzed over several quarters.

Student Course Evaluation. The formative portion of the instrument was designed to assess the student's feelings about specific aspects of instruction in the course - objectives, format, texts, films, instructional and evaluation procedures. (Appendix B) The summative aspect merely asks the student to compare the instruction received and the instructor to other courses and instructors.

The 34 items of the student evaluation questionnaire are divided into four clusters: Cluster I: Objectives (4 items) attempts to determine whether objectives are specified clearly. Cluster II: Instructional Procedures (19 items) attempts to assess student attitude toward specific aspects of instruction in the course. Cluster III: Tests and Evaluation (7 items) attempts to assess student attitudes toward weekly testing and total points required to achieve specific grades. Cluster IV: Overall (4 items) deals with summative items.

Procedure:

The demographic and pretest data were gathered during the second large group meeting of the first week of the quarter. The weekly quizzes were given each Friday. Student course evaluation data was gathered during the last small group meetings of the quarter by the small group leaders. Neither the senior instructor nor graduate assistants were present in any small group during these evaluations.

The demographic survey and the end-of-course student evaluation were computer analyzed. The pretest and all weekly quizzes were computer scored. Weekly quizzes were summarized by the computer and grades assigned on the basis of a grid provided by the instructor.

Pearson product moment coefficients were computed to access the relationship between students' performances on the demographic survey, the pretest, and the end-of-course evaluation, and their scores on the weekly quizzes.

RESULTS

As expected, the ten weekly quizzes were found to be significantly inter-correlated ($r = .4108$ to $.7474$). Sixty of 430 (13.93%) correlations between demographic variables and the weekly quizzes were found to be significant ($r = .2550$ to $.5791$). The pretest was found to be related to all ten weekly quizzes ($r = .4014$ to $.5243$). Fifty-eight of the 340 (17.0%) of the correlation between the 34 item end-of-course student evaluation and weekly quiz scores were significant ($r = .2529$ to $.4823$).

Interrelatedness of Weekly Quizzes

Weekly quizzes were found to be highly correlated (Table 1). No clear pattern emerged between particular quizzes. However, quizzes one through five covering the material on classroom management presented in Teaching 1 appear to be more highly interrelated (r = .5030 to .7474) than quizzes six through ten covering the material on concepts and operations covered in Teaching 2 (r = .4879 to .6763). The widest range of interrelatedness (r = .4108 to .6902) appears between in clusters one through five (Teaching 1) and six through ten (Teaching 2).

Demographic Data and Weekly Quizzes

Of the 60 of 430 significant correlations between demographic data and the ten weekly quizzes, 88.3% are accounted for by "Grade received in general psychology", "Academic rank", and "Grade expected in this course" (Table 2).

Thirty-three of 50 correlations (66.0%) between "Grade received in General Psychology" and weekly quiz scores were significant (r = .2555 to .5135). Twenty were positive (r = .2622 to .4562) and thirteen negative (r = -.2555 to -.5791).

"A" and "B" students from general psychology generally appear to be performing well in H.D. & L. The presence of negative correlation, thirteen of thirty (43.3%) significant, for students who received "C", "D", and "F" suggests that many of these students were successful on the weekly quizzes in H.D. & L. This appears to be particularly true for students who received a "D" in general psychology. All ten correlations were significant although negative (r = -.3246 to -.5791).

Seven of 50 correlations (14.0%) between "Academic Rank" and week quiz scores were significant (r = .2619 to .3593). Six of the seven significant correlations related to tests five, six, and seven. Freshman tended to do significantly less well than other students (r = .3007 to .3063) while juniors tended to score significantly higher than other students on tests, five, six, and seven (r = .2619 to .3593). Juniors also tended to do better than other academic ranks on test ten (r = .2741).

Fourteen of 40 correlations (35.0%) between "Grade expected" and weekly quizzes were significantly (r = .2747 to .3996) related to tests 2,3,6,7,8,9, and 10. Students who expected an "A" or "B" tended to be higher performers on these tests (r = .2719 to .4237) while students who expected to receive a "B" or "C" tended to be more erratic - four out of seven times they tended to do significantly less well (r = -.3182 to .4315), while three times they tended to perform well (r = .3417 to .3959). Only one of 10 correlations (10%) between grade expected and weekly quizzes was significant for students who expected a "C" or "D" (r = -.3068). The negative correlation seems to suggest that they did less well than other students on that quiz.

Although only two out of 50 correlations (4.0%) between age and weekly test scores were significant, the fact that all correlations for nineteen year olds and below were negative, seems to suggest that a little additional age might help their performances on the weekly quizzes.

The Pretest and Weekly Quizzes

The pretest was found to be significantly related to all ten weekly quizzes (r = .4014 to .5243) (Table 1). Pretest scores accounted for between 16 and 25 percent of the variance on each weekly quiz.

The Student End-of-Course Evaluations and Weekly Quizzes

Correlations were computed between students' responses to each of the 34 items on the end-of-course evaluation and their performances on each of the weekly quizzes. Fifty-eight of the 340 (17.9%) correlations were significant (r = .2529 to .4893) (Table 3). The highest number of significant correlations for any particular quiz was thirteen (38.4%) for quiz 8. Test 10 was the only quiz with no significant relationship to student evaluation.

The 34 item questionnaire contains four clusters of items: Cluster I: Objectives - 4 items, Cluster II: Instructional Procedures - 19 items, Cluster III: Test and Evaluation, and Cluster IV: Overall Evaluation - 4 items. Cluster IV contains the summative items. All others are formative.

Fourteen of the 40 (35.0%) correlations between Cluster I: Objectives and weekly quiz scores were significant (r = .2529 to .4930). Thirty-nine of the 190 (20.5%) correlations between Cluster II: Instructional Procedures and weekly quizzes were significant (r = .2519 to .3898). Eighteen of the 70 (25.8%) correlations between Cluster III: Testing and Evaluation and weekly quizzes were significant (r = .2815 to .4888). None of the forty correlations between Cluster IV: Overall Evaluation

and weekly quizzes were significant. Thirty-two of these 40 (80.0%) nonsignificant correlations were low negative.

CONCLUSIONS

The data provided by this sample suggests that the current weekly quizzes are highly interrelated, and that student performances appear to be relatively consistent throughout the course.

The pretest scores appear to be significant predictors of student performance and as such, they could become a valuable diagnostic tool if a more careful analyses of items were performed. Currently, the pretest accounts for 16 to 25 percent of the variance on weekly quizzes.

"Grade in general psychology" and "Expected grade in this course" are the best current individual predictors of student performance on the weekly quizzes. "Academic rank" shows promise as a predictor, although it is interrelated with age. Age, at least "19 or under," appears to be negatively related to doing well on the quizzes.

The relationships obtained between some item clusters in the 34 item student questionnaire and student performances on the quizzes were unexpected. Fourteen out of 40 significant correlations for Cluster I is somewhat surprising although logical. One would expect students who do well in the course to use and value objectives more highly than students who do less well. Current research suggests that summative evaluation and course performance are usually independent (Aleamoni, 1976, and Scriven, 1977).

The low, nonsignificant correlations between items in Cluster IV: Overall Evaluation would seem to support Aleamoni and Scriven's notions, although the negative correlations were unexpected.

Clearly, several potent relationships were uncovered between various individual predictors and performance on the weekly quizzes.

DISCUSSION

The various predictors now must be combined into a predictor team. That team should at least include: three items from the demographic survey, the pretest after further item analyses, and several items from the student post-course evaluation. The demographic data would include at least:

1) "Grade received in general psychology"

2) "Grade expected in this course," and

3) "Current academic rank" or age.

The end-or-course items would include.

Cluster I - Objectives

Item 1 - Were overall objectives specified clearly?

Item 2 - Were unit objectives specified clearly?

Cluster II - Instructional Procedures

Item 5 - Did reading assignments contribute to your attempts to meet course objectives?

Item 9 - Did Teaching 2 contribute to your attempts to meet course objectives?

Item 11 - Did study questions contribute your attempts to meet course objectives?

Cluster III - Tests & Evaluation

Item 28 - How many times should students be allowed to take a retest? (A=none, B=once, etc).

Item 29 - ...does the scale for assigning of letter grades appear reasonable or fair to you?

Each of the above items was significantly related to performance on at least five weekly quizzes. Analysis of these items suggests that students who did well on quizzes understood the objectives, felt the materials provided helped them achieve the objectives, and that the evaluation procedures were reasonable.

By combining the demographic, pretest, and post-course items indicated, predictor sets can be developed, which will enable us to move toward personalized instruction. For instance, we may need to develop a special program for persons nineteen and under, who perform below normal on the pretest, and who have difficulty using the objectives, and another program for older students who are essentially self-directive. An unlimited number of variations are possible. This model will enable us to obtain the data necessary to develop personalized program of instruction.

TABLE 1

CORRELATIONS BETWEEN

PRETEST AND WEEKLY QUIZZES & BETWEEN WEEKLY QUIZZES &

BETWEEN SMALL GROUPS & PRETEST & WEEKLY QUIZZES

WEEKLY QUIZ	PRETEST	WEEKLY QUIZZES									
		1	2	3	4	5	6	7	8	9	10
1	.5069	---	.6773	.6562	.5307	.5030	.5209	.4961	.5268	.4871	.5113
2	.5134		---	.7474	.6349	.5435	.5769	.6213	.5897	.7311	.6199
3	.5243			---	.6849	.5812	.6157	.6049	.7340	.6902	.6070
4	.4474				---	.6036	.5681	.5655	.6010	.6168	.5184
5	.4942					---	.4108	.6183	.5176	.4964	.5341
6	.4014						---	.5535	.6636	.6192	.4879
7	.5095							---	.6518	.5577	.6009
8	.5371								---	.6763	.5608
9	.4871									---	.5495
10	.4990										---
SMALL GROUP	-.0110	.2302	.0839	.0383	-.0181	.0098	.1687	.0853	.1802	.2770*	.2113

* r=.2500, n=64, p<.05

** r=.3248, n=64, p<.01

*** r=.4078, n=64, p<.001

TABLE 2

CORRELATIONS BETWEEN PRETEST, WEEKLY QUIZZES, SMALL GROUPS AND DEMOGRAPHIC DATA

PERFORMANCE SCORE	DEMOGRAPHIC DATA									
	AGE			SEX		GRADE IN PSYCHOLOGY				
	under 19	20-24	25-29	Male	Female	A	B	C	D	F
PRETEST	.1218	.0199	.1607	.0716	-.0716	.4049	.3657	-.3367	-.2941	-.1962
WEEKLY QUIZZES										
1	-.0948	.1454	-.0596	.0183	-.0183	.2987	.3192	-.1632	-.4456	-.0339
2	-.1509	-.0207	.2048	.0527	-.0527	.3177	.4179	-.1793	-.5791	-.0034
3	-.1913	.1261	.1183	.0312	-.0312	.3262	.3489	-.2142	-.4322	-.0695
4	-.1331	.0246	.1717	-.1007	-.1007	.3777	.2601	-.2017	-.3800	-.0684
5	-.2647*	.1778	.1590	.2628*	-.2628*	.3069	.3633	-.2555*	-.3366	-.1392
6	-.1673	.0728	.1566	-.0123	.0123	.2985	.3989	-.1964	-.4858	-.0624
7	-.1603	.1032	.1022	.1238	-.1238	.2622	.4562	-.2709*	-.3892	-.1310
8	-.1280	.0582	.1162	.0047	-.0047	.3766	.3286	-.1630	-.4516	-.2020
9	-.2151	.1439	.1300	.0733	-.0733	.2710	.4091	-.1608	-.5135	-.0760
10	-.2472	.0861	.2616*	.0861	.0861	.4144	.3192	-.3476**	-.3246	-.0007
SMALL GROUPS	-.0795	.0438	.0614	-.1926	.1926	.1964	.0599	-.1409	-.1074	.0072

*r=.2500, n=64, p<.05

**r=.3248, n=64, p<.01

***r=.4078, n=64, p<.001

NUMBER OF COURSES IN EDUCATION				ACADEMIC RANK					MAJOR (COLLEGE)				
1	2	3	4	Fresh.	Soph.	Jun.	Sr.	Post-B.	Ed.	A.&S.	Bus.	F.&Ap.A	Other
.1664	.0544	.1875	-.1523	-.2859	.0439	.1802	.1384	.2019	-.1085	.0297	.0421	0.0	.0975
.0952	-.0325	.0894	-.2600	-.0482	.0803	.1331	.0894	.0176	-.0803	.0494	-.0133	0.0	.0770
-.2118	-.0823	.1496	-.0265	-.2051	.0014	.1444	.1116	.1703	-.0674	.0101	.0181	0.0	.0748
-.1182	.0611	.1392	.0465	-.1641	.0208	.1930	.0863	.0927	-.1820	.1634	-.0637	0.0	.1474
-.1817	-.0065	.0875	.1541	-.2438	.0695	.1717	.0875	.1099	-.0802	-.0457	-.0580	0.0	.2042
-.1816	-.0044	.2300	-.0388	-.3007*	.0586	.3593**	-.0221	.0581	-.1098	.0724	-.0388	0.0	.1153
-.2144	-.1001	.0509	.1562	-.3054*	.1001	.2619*	-.0627	.1431	-.1459	.0171	-.0437	0.0	.2266
-.0950	.1359	.0000	-.0431	-.3063*	.0772	.2921*	.0735	.0753	-.1614	.0782	.0647	0.0	.1095
-.1289	.0609	.1596	-.0169	-.1987	-.0149	.2170	.0327	.1320	-.0786	-.0919	.0017	0.0	.2049
-.1055	.1673	.1083	.0221	-.2124	-.0623	.2300	.1802	.1484	-.1182	-.0139	.0642	0.0	.1390
-.0297	.1031	.1571	.0776	-.1798	-.1061	.2741*	-.0950	.2412	-.1270	-.0013	-.0194	0.0	.1999
.0063	.0732	.0612	.0459	.2043	-.3556**	.0447	.0191	.1254	-.0591	-.0498	.0089	0.0	.1293

TEACHING LEVEL					TEACHING EXPERIENCE					GRADE EXPECTED			
Presch.-Ele.	Middle Sch.	Hi Sch.	Coll.	Other	Sub T.	Church Sch.	Camp Couns.	A. F.	Other	A-B	B-C	C-D	D-F
-.2819*	.0998	.2907*	.0493	-.0297	-.0147	-.1125	.0535	.1997	.0135	.4667***	-.3672**	-.0597	0
-.2059	.1501	.0470	-.0513	.0264	.0124	-.2081	.0046	.0894	.0962	.0893	-.1829	-.1046	0
-.2701*	.1509	.1663	-.1602	.0698	.0296	-.3333	.0538	.1116	.0862	.3996**	-.3591**	-.1146	0
-.2514*	.1312	.1079	.0024	-.0581	.1132	-.1762	-.1356	.1016	-.0085	.3456**	.3417**	-.0487	0
-.0268	.0174	.0937	-.0050	-.1203	-.0274	-.2775*	.0460	.0875	-.0660	.2009	.1811	-.0480	0
-.1959	.0065	.1357	-.0795	-.0473	-.0510	-.1460	.0388	.2300	-.0642	.1929	.2310	-.0221	0
-.2412	.0655	.2213	-.0215	-.0817	-.0399	-.2268	-.0390	.2024	-.0253	.3950***	.3959**	-.0249	0
-.1397	-.0942	.1933	.0647	-.0551	.0679	-.3262**	-.1168	.1470	.1187	.3853**	.3790	-.3068	0
-.1326	-.0467	.0453	-.1320	.0042	.1195	-.1215	-.1359	.0961	-.0714	.4237***	-.4315***	.0644	0
-.2409	.1852	.0965	.0623	-.0408	.1673	-.2460	.0729	.1083	-.0494	.2747*	-.2958	.0365	0
-.1309	.0636	-.0121	.0176	.0168	.0280	-.2297	-.1516	.2201	.0512	.2719*	-.3182	.1256	0
.1441	.0283	-.3461**	.0582	.0485	.1316	-.0486	.0196	.0612	-.1298	-.1005	-.0753	.0401	0

TABLE 3

CORRELATION BETWEEN PRETEST, WEEKLY QUIZZES, SMALL GROUPS AND STUDENT EVALUATION OF THE COURSE

PERFORMANCE SCORES	STUDENT EVALUATION OF THE COURSE											
					INSTRUCTIONAL PROCEDURES							
	I. OBJECTIVE				READING ASSIGNMENTS							
	1	2	3	4	5	6	7	8	9	10	11	12
PRETEST	.1580	.2243	.0421	.0091	.1205	-.0320	.0447	-.0341	.1041	.0918	.1692	.1004
WEEKLY QUIZZES												
1	.2287	.2696*	.1942	.0607	.2857*	.1577	.2023	.1427	.2714*	.1457	.1967	.1907
2	.1627	.2279	.1970	.0589	.2177	.2067	.0590	.1577	.2092	.1019	.2228	.2149
3	.3717**	.4892***	.1975	.1856	.3430**	.2893*	.0204	.1275	.2791*	.0398	.1958	.1559
4	.2598*	.3701**	.0923	.0153	.1425	.1433	.0270	.1266	.2217	.0987	.3541**	.0741
5	.1575	.2434	.2225	.0710	.1962	.1434	.1723	.1108	.2754*	.1446	.3132**	.2432
6	.4057**	.4930***	.1494	.1181	.3388**	.2078	-.1027	.1972	.3398**	.1190	.2473	.1528
7	.3352**	.2688*	.2223	.1111	.1894	.1218	.0632	.1280	.2952*	.0122	.3713**	.2491
8	.4512***	.4640***	.3273**	.2529*	.3898**	.2401	-.0398	.0785	.3709**	.1284	.3048*	.1929
9	.2175	.3101*	.1269	.0573	.2725*	.1078	-.1215	.0868	.2725*	.0741	.2519*	.2243
10	.2095	.1567	.0427	-.0939	.0093	-.0121	-.1399	-.1045	.0594	-.1433	.1340	.0327
SMALL GROUPS	.1473	.1447	.0388	.0317	.1107	.0946	.0053	.0712	.0263	-.0025	-.0079	.0676

*r=.2500, n=64, p<.05

**r=.3248, n=64, p<.01

***r=.4078, n=64, p<.001

		FORMAL PRESENTATIONS			AUDIO VISUAL			SMALL GROUP		
13	14	15	16	17	18	19	20	21	22	23
.0386	-.2233	-.2416	-.1776	-.1630	.1355	.0668	.1130	-.2636	-.1799	-.1543
.0350	-.0777	-.081	.2118	.0034	.0591	.0591	-.0754	-.2984	-.1791	-.1610
.0116	-.0756	-.2267	.0163	-.1399	.0506	.0552	-.0160	-.3331**	-.1626	-.1527
.1102	-.0879	-.2092	.0038	-.2035	.0821	.0775	-.0021	-.1556	-.0561	-.0040
.1104	-.0248	-.2337	.0896	-.0787	.0052	.0876	.0700	.0098	.1169	.0708
.1913	.0226	-.2245	.0455	-.1721	.3102*	.2733*	.3010*	.0873	.1056	.2428
.1435	.0547	-.0746	.0743	-.1668	.1882	.2158	.0045	-.2808*	-.0150	-.2725*
.1485	-.0264	-.1167	.0408	-.1801	.0805	.2102	.1639	-.1034	-.0382	.0461
.2740*	.0332	-.1068	.1128	-.1666	.2143	.2838*	.2057	-.2077	-.0179	-.1243
.0335	-.0697	-.2227	-.0059	-.1310	-.0120	.0886	-.0270	-.1993	.0197	-.0765
-.0257	-.0100	-.0580	.0436	.0281	.0143	-.0355	.1054	-.1970	-.1091	-.1520
.0829	.1111	.1980	-.1585	.1190	.0599	-.0297	.0678	-.1014	-.1132	-.0213

TESTS & EVALUATION							OVERALL EVALUATION			
24	25	26	27	28	29	30	31	32	33	34
-.0667	-.0527	-.0610	.0705	.1556	.2327	.1477	-.1439	-.0979	-.1882	-.1499
.0215	.0308	.1802	.1878	.2194	.3289**	.1242	-.0170	-.0381	-.0327	-.0081
.0949	-.0427	.1079	.0605	.2815*	.3585**	.0508	-.1035	.0544	-.0546	-.1387
-.0001	.0120	.1397	.2844*	.2881*	.3372**	.1806	-.0899	.0327	-.0508	-.1012
-.0036	-.0342	.2185	.2159	.2306	.1723	.0436	-.0649	-.0185	-.1729	-.1692
.0661	.0967	.2446	.2917*	.2192	.4888***	.2911*	-.0129	.1960	-.0700	-.0363
.0767	.1251	.1222	.0556	.1307	.1897	.2226	-.1054	-.0620	-.1003	-.1096
.1336	.1301	.1943	.1849	.2998*	.4044**	.2636*	-.0986	.1128	-.0549	-.0786
.0924	.1593	.1617	.2726*	.2767*	.3176*	.3318**	-.0606	.0584	.0575	-.0218
-.1204	-.0503	.0663	.0941	.3619**	.3358**	.1324	-.1288	-.0864	-.1123	-.0825
-.1530	.1100	.0322	.1922	.0092	.2371	.0748	-.0697	-.0597	-.0364	-.2032
-.1346	.0585	-.439	.0768	.0975	.1474	.1906	-.0548	-.0625	.0196	.0296

APPENDIX A

for Human Development and Learning (565:157)

Instruction: Answer each question to the best of your ability. Mark only one answer for each question. Please use the answer sheet provided and an electrographic pencil as your answers will be mechanically scored.

These questions are for instructional purposes only. They will not affect your grade for the course negatively in any way.

1. Age?
   a. 19 or under.
   b. 20-24
   c. 25-29
   d. 30-39
   e. 40 and over

2. Sex (check one)
   a. male
   b. female

3. Have you taken General Psychology?
   a. At The University of Akron
   b. At another institution
   c. I have not taken General Psychology.

4. If you have completed General Psychology, what grade did you receive?
   a. A
   b. B
   c. C
   d. D
   e. F

5. How many courses in Education have you taken previous to this quarter?
   a. one
   b. two
   c. three
   d. more than three

6. How many hours of college work have you completed prior to this quarter?
   a. 50 or less
   b. 51 to 100
   c. 101 to 150
   d. over 150 undergraduate hours
   e. Post-Bachelors' student

7. What is your intended major field?
   a. Education
   b. Arts and Science
   c. Business
   d. Fine and Applied Arts
   e. Other

8. If you checked Education in Ouestion #7, for what level of education are you currently preparing?
   a. preschool and lower elementary
   b. middle school - junior high age
   c. high school
   d. college, university and/or vocational training
   e. special areas - e.g., counseling, speech and hearing, art, music, etc.

9. Have you had experience teaching or working with children? (If you have done more than one of these, check the one you consider most valuable to you.)
   a. Substitute or regular teaching in schools
   b. Church school teaching
   c. Camp counselor, girl or boy scout leader, etc.
   d. Armed Forces instructor
   e. Other teaching

10. On the basis of your past academic performance, what grade do you expect to receive in this course?
   a. A or B
   b. B or C
   c. C or D
   d. D or F

APPENDIX B

The instructional staff of Human Development and Learning (565:157) would appreciate your honest evaluation of their efforts this quarter. In order to develop a comparable evaluation system we have constructed the questionnaire below. A separate open-ended form will also be provided for your more personalized comments.

Please use the following guide in responding.

A = Very true, very much, very good
B = Mostly true, pretty much, good
C = Sometimes, average, about right
D = Seldom, a little, bad
E = Never true, very little, Yech

I. Objectives:

1. Were overall course objectives clearly specified? A B C D E
2. Were unit objectives clearly specified? A B C D E
3. Were examinations valid measures of your attempt to meet specified objectives? A B C D E
4. Did objectives tell you clearly what you were to be able to do? A B C D E

II. Instructional Procedures:

A. Reading Assignments and the Study Guide

5. Did the reading assignments contribute to your attempt to meet the course objectives? A B C D E
6. Did Teaching I contribute to your attempt to meet course objectives? A B C D E
7. Was Teaching I appropriate for your level of reading comprehension? (A=too easy, B=easy, C=about right, D=difficult, E=out of sight) A B C D E
8. Did the study questions contribute to your ability to determine the key concepts - i.e., those concepts tested for. A B C D E
9. Did Teaching II contribute to your attempt to meet the various course objectives? A B C D E
10. Was Teaching II appropriate to your level of reading sophistication? (A=too easy, B=easy, C=about right, D= difficult, E=out of sight) A B C D E
11. Did the study questions contribute to your attempts to comprehend Teaching II? A B C D E
12. Was the number of study questions in Teaching I & II adequate - i.e., did they cover the reading adequately? A B C D E
13. Did the packet help you to understand the course procedures? A B C D E
14. Did you find that the vocabulary lists in the packet aided in your test performance? A B C D E

B. Formal presentations (lectures)

15. Did the formal presentations by the senior instructor contribute to your meeting of the specified course objectives? A B C D E

16. Did the formal presentations assist you in your attempt to obtain the key concepts from the reading material? A B C D E

17. How many formal presentations a week should there be? (A=4 presentations, B=3, C=2, D=1, E=0) A B C D E

C. Audio-visual materials:

18. Did the audio-visual presentations contribute to your meeting the overall course objectives? A B C D E

19. Did the weekly A-V presentation contribute to your understanding of the unit objectives? A B C D E

20. Do you recommend that we continue to use these A-V materials? A B C D E

D. Small group activities:

21. Did the small group activities contribute to the course objectives of helping you understand the role of the teacher in the instructional process? A B C D E

22. Did the leader of your group facilitate the participation of members of the group? A B C D E

23. Would you recommend that the small groups be continued next quarter? A B C D E

III. Testing and Evaluation

24. Were the tests valid measures of the overall objectives of the course? A B C D E

25. Were the unit tests generally valid measures of the material covered by the specific units? A B C D E

26. Did the study questions aid test performance? A B C D E

27. How often should tests be given? (A=weekly, B=every two weeks, C=three a quarter, D=midterms and final, E=final only) A B C D E

28. How many times should a student be allowed to take the retest? (A=none, B=once, C=twice, D=as many as he wants, E=until he masters the material - i.e., meets criterion - e.g., 80%) A B C D E

29. In light of the course emphasis upon mastery of the subject matter, does the scale for assigning of letter grades appear reasonable or fair to you? A B C D E

30. Do you feel that the instructor is fair - i.e., treats each student equally in assigning grades? A B C D E

IV. Overall evaluation

31. How would you rate this course (H.D. & L.) in comparison to other large classes that you have taken at The University of Akron - such as General Psychology and Institutions? A B C D E

32. How much do you feel that this course will contribute to your general education? A B C D E

33. How much do you feel this course will contribute to your preparation for teaching? A B C D E

34. Assuming that H.D. & L. was not required, would you recommend it to fellow students? A B C D E

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